

WHAT IS CLAIMED IS:

Sub A57

1. A file conversion method for extracting, from a first file composed of a plurality of pieces of data displayable on a display unit and with a start and an end of each piece of data indicated by respective identifiers, data displayable on a limited-capability device, in accordance with the identifiers, and for outputting the extracted data to the limited-capability device, the file conversion method comprising:

a step of detecting the identifier by reading the file;
a step of determining whether the data indicated by the detected identifier is displayable on the limited-capability device;

a step of extracting the data, the start and the end of which are indicated by the determined identifier and which is determined to be displayable on the limited-capability device;
and

a step of outputting an output file which is newly created from the extracted data, as a different file from the first file.

2. A file conversion method according to claim 1, wherein the step of extracting the data is performed by referencing a conversion definition file that defines the identifier of the data that is displayable on the limited-capability device.

3. A file conversion method according to claim 2, wherein the conversion definition file includes a rule for converting an image data file, and wherein the file conversion method comprises a step of outputting, to the limited-capability device, the image data file which has been converted based on the conversion rule of the image data file.

4. A file conversion method according to claim 2, wherein the conversion definition file includes information of an image size displayable on the limited-capability device.

5. A file conversion method according to claim 2, wherein the file comprises category information, and wherein the file conversion method comprises a step of selecting the conversion definition file to be used, based on the category information of the file among a plurality of conversion definition files.

6. A file conversion method according to claim 1, wherein a file name of a file output as a new file uses a symbol string indicated by the predetermined identifier.

7. A file conversion method according to claim 1, further comprising a step of selecting a file to be output to the limited-capability device from among the extracted data in response to an instruction from a user.

8. A file conversion method according to claim 1, further comprising a step of acquiring the first file through a communication network from a data storage apparatus.

9. A file conversion method according to claim 1, wherein the step of extracting the data comprises initializing a data buffer, and

buffering in the data buffer the data included in the first file, the start and the end of which are indicated by the detected identifiers.

10. A file conversion method according to claim 1, wherein the outputting of the data, the start and the end of which are indicated by the identifiers, to the limited-capability device is restricted in accordance with the identifiers.

11. A file conversion method according to claim 1, wherein the expiration date of the data, the start and the end of which are indicated by the identifiers, is indicated by the identifiers.

12. A file converter for extracting, from a first file composed of a plurality of pieces of data displayable on a display unit and with a start and an end of each piece of data indicated

by respective identifiers, data displayable on a connected limited-capability device, and for outputting the extracted data to the limited-capability device, the file converter comprising:

a file storage means for storing the file;

a detector means for detecting the identifier which indicates the data displayable on a limited-capability device from the file stored in said first file storage means;

a extractor means for extracting, from said first file, the data with the start and the end thereof indicated, in accordance with the identifier detected by the detector means;

an output means for outputting the extracted data to the limited-capability device; and

a control means for controlling the detector means to detect the identifier indicating the start and the end of the displayable data for the purpose of extracting the data displayable on the limited-capability device from said first file stored in said file storage means, for controlling said extractor means to extract, as a new output file, data including the start and the end indicated by the identifier from said first file, and for controlling said output means to output the new output file to the limited-capability device.

13. A data converter according to claim 12, further comprising an extracted data storage means for storing the extracted data as candidate data to be output to the

~~limited-capability device.~~

14. A data converter according to claim 13, wherein the data converter selectively outputs the data from among data stored in said extracted data storage means to the limited-capability device in response to an instruction of a user.

15. A data converter according to claim 12, further comprising an image converter means for converting an image file indicated by said first file into data displayable on the limited-capability device.

16. A data converter according to claim 15, further comprising a rule file storage means for storing a conversion rule file for converting said image file into an image file displayable on the limited-capability device,

wherein said image converter means performs image conversion based on data indicating a screen size of the limited-capability device included in said conversion rule file.

17. A data converter according to claim 12, further comprising a display data output means for converting said first file into a data format displayable on the limited-capability device for displaying said first file,

wherein the data converter acquires a file which is

converted to be output to the limited-capability device from a file buffer means which buffers at least one file of the display data output means.

18. A data converter according to claim 12, further comprising a data communication means for acquiring the file through a communication network.

19. A data converter according to claim 12, wherein the data converter restricts, to the limited-capability device, the outputting of data not displayable on the limited-capability device, from among data from the start to the end indicated by the extracted identifier.

20. A data converter according to claim 12, further comprising:

an expiration date extractor means for extracting, from the identifier, expiration date data indicating the expiration date of the data extracted by the identifier; and

an expiration date determination means for determining the expiration date of the extracted data based on the expiration date of the extracted data.

21. A data converter according to claim 12, further comprising a data renewal means for renewing the expiration date

of the extracted data when it is determined that the extracted data has expired.

22. A file conversion method for converting a first file composed of a plurality of pieces of data displayable on a display unit with a start and an end indicated by respective identifiers into data displayable on a connected limited-capability device, and outputting the data as a new output file to the limited-capability device, the file conversion method comprising:

a step of initializing a first data buffer for buffering data when a plurality of pieces of data is read from the file;

a step of detecting the identifier indicating the start of the data in the file, based on a rule for processing the data in the file into a data format displayable on the limited-capability device, when the data is from the file and is stored in the first data buffer;

a step of moving the data stored in the first data buffer to a second data buffer for evacuation;

a step of holding the data in the file, from the start thereof, into the first data buffer, based on the identifier indicating the start of the detected data;

a step of detecting the identifier indicating the end of the data in response to the identifier indicating the end of the detected data; and

a step of moving the data evacuated into the second data

buffer to the first data buffer for restoration.

23. A file conversion method according to claim 22, further comprising:

a step of storing, in a storage means, data from the first data buffer as data to be processed; and

a step of moving the data evacuated into the second data buffer to the first data buffer for restoration.

24. A file display system comprising a first apparatus for receiving a file including a plurality of pieces of data, displayable on a display unit, with the start and the end of each piece of data indicated by respective identifiers, and a second apparatus having a throughput lower than that of the first apparatus and receiving and displaying data into which the first apparatus converts the file,

wherein the first apparatus comprises:

a storage means for storing the file input thereto;

a detector means for detecting an identifier which indicates the data, which is processable by the second apparatus, from the file stored in the storage means;

an extractor means for extracting, from the input file, the data which is detected by the detector means and is processed into data processable by the second apparatus;

a processing means for processing the extracted data into

the data that is processable by the second apparatus; an output means for outputting the data, which has been processed to be processable by the second apparatus, to the second apparatus; and

a control means for controlling the storage means to store the file input thereto in the storage means, for controlling the detector means to detect the identifier that indicates, from the file stored in the storage means, data that can be processed to be processable by the second apparatus, for controlling the extractor means to extract the data that is processed by the processing means in accordance with the identifier detected by the detector means, and for controlling the output means to output the data that has been processed by the processing means; and

wherein the second apparatus comprises:

a receiver means for receiving the data output by the first apparatus; and

a display means for displaying the data received by the receiver means.

25. A file display system according to claim 24, wherein the first apparatus further comprises a receiver means, and wherein the receiver means receives the file from a file server connected to the receiver means via a network.

26. A file display system according to claim 24, wherein the first apparatus further comprises a buffer means for buffering the data extracted from the file by the control means, and wherein the control means controls the buffer means to buffer the extracted data while processing the data buffered in the buffer means.

27. A file display system according to claim 24, wherein the first apparatus further comprises an operation means operated by a user, and

wherein the control means outputs the data, designated on the operation means by the user, to the second apparatus.

28. A file display system according to claim 24, wherein the second apparatus further comprises:

an operation means operated by a user; and

a storage means for storing the data received by the receiver means,

wherein the data designated on the operation means by the user is read from the storage means and is displayed on the display means.